Fordyce Lectureship

ON

AGRICULTURE, CHEMISTRY, &c.

IN MARISCHAL COLLEGE AND UNIVERSITY,
ABERDEEN.

TESTIMONIALS

IN FAVOUR OF

JAMES S. BRAZIER.

ABERDEEN:
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TO THE

LORD PROVOST AND THE MAGISTRATES OF ABERDEEN,

AND TO THE

VERY REVEREND THE PRINCIPAL, AND THE PROFESSORS OF MARISCHAL COLLEGE AND UNIVERSITY.

GENTLEMEN,

I beg to offer myself as a Candidate for the FORDYCE LECTURESHIP, and to submit to your consideration the accompanying Testimonials of my qualifications for the office.

I am,

GENTLEMEN,

Yours obediently,

JAMES S. BRAZIER.

ABERDEEN, April 4, 1853.

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TESTIMONIALS.

I.

Testimonial awarded by the COUNCIL *of the* ROYAL COLLEGE *of* CHEMISTRY.

IT is hereby certified that Mr. JAMES S. BRAZIER has conducted chemical researches under the direction and to the satisfaction of the Professor in the Laboratories of the ROYAL COLLEGE of CHEMISTRY, and in consideration of the talent and industry he has displayed during his course of practical instruction, the Council have awarded him this HONORARY TESTIMONIAL.

ALBERT, President.
A. W. HOFMANN, Professor.

Given at the College in London,
this 22nd day of November, 1851.

II.

From Sir JAMES CLARK, *Bart.*, M.D., F.R.S., &c. &c. *Chairman of the Council of the Royal College of Chemistry.*

THE COUNCIL of the ROYAL COLLEGE of CHEMISTRY give this Testimonial to Mr. JAMES S. BRAZIER, for the services which he has rendered to the College in the fulfilment of his duties as Junior and Senior Assistant during the last two years.

The COUNCIL desire to mark with high approbation the contributions of Mr. BRAZIER to the *Quarterly Journal of the Chemical Society*, whereby the scientific credit of the College has been increased, and the talent, skill, and diligence of the

author has been made evident, whilst the firmest surety has been given that, in his future career, whether as an investigator, or as a teacher of Chemistry, he will reflect high honour upon the Royal College of Chemistry.

JAMES CLARK, M.C.

November 18, 1851.

III.

From AUGUSTUS W. HOFMANN, Ph. D., F.R.S., &c. &c. *Professor of the Royal College of Chemistry, London.*

ROYAL COLLEGE OF CHEMISTRY, Nov. 1851.

IT is with great pleasure that I bear testimony to the scientific acquirements of Mr. JAMES S. BRAZIER.

Mr. BRAZIER entered the Laboratory of the Royal College of Chemistry in 1847, and soon attracted my special attention, by the perseverance and earnestness with which he prosecuted his studies. His untiring energy, conjoined with sound intelligence, and remarkable skill and dexterity in the performance of experiments, rapidly carried him through the regular course of qualitative and quantitative analysis adopted in the Laboratory of this Institution ; and before he had completed the second year of his studies, he published, jointly with Mr. Mayer, two papers, the one, "Analysis of the Mineral Constituents of the Flax Plant, and of the Soils on which the Plants had been grown ;" the other, "An Analysis of Plate Glass ;" both of which were read before, and printed in the *Quarterly Journal of, the Chemical Society* of London. In these two communications, Mr. BRAZIER shows that he is perfectly master of all the operations of mineral analysis. At the termination of two years, a vacancy having occurred in the College, he became Junior Assistant in the Laboratory, where, under my direction, he superintended the practical exercises of the students. During this time, although much occupied with his duties, he succeeded in performing a series of experiments on two organic acids, which he subsequently published, jointly with Mr. Gossleth, un-

der the title, "Contributions towards the History of Caproic and Œnanthylic Acids," which are likewise printed in the *Quarterly Journal of the Chemical Society.*

These researches, which are chiefly devoted to the investigation of the deportment of the two mentioned acids under the influence of the galvanic current, give ample evidence of Mr. BRAZIER'S thorough acquaintance with the methods of organic inquiry. Very soon afterwards, Mr. BRAZIER became Senior Assistant in the College, and from that time I was happy enough to secure his co-operation in the prosecution of my own researches, and I had an opportunity of acknowledging the valuable assistance which he rendered me, publicly in the last paper which I communicated to the Royal Society.*

Mr. BRAZIER, who intends devoting himself to the teaching of Chemistry, has just accepted an offer made to him by Professor Andrews, to become Chemical Assistant in the Laboratory of Queen's College at Belfast, a position which opens to him the prospects of an honourable and useful career. Although very sorry to lose the co-operation of Mr. BRAZIER my best wishes accompany him in his new position. I am sure that he will be an ornament to that or to any Institution he may become associated with, either in the capacity of a Teacher or as an Analyst.

In conclusion, I may state that a more amiable, modest, and trustworthy man cannot be found than Mr. BRAZIER, whose experimental talent, and whose kind and intelligent mode of communicating knowledge, will long be remembered by those who enjoyed the benefit of his assistance and instructions.

A. W. HOFMANN, Ph. D., F.R.S.

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* *Philosophical Transactions of the Royal Society*, 1851, *page* 390.—"The analysis of the tetramyl-ammonium salt concludes the experimental part of this paper; and here I cannot but make mention publicly of the valuable assistance which Mr. James S. Brazier, Senior Assistant in the Royal College of Chemistry, has given me during the prosecution of these inquiries. I thankfully acknowledge the aid of this able young chemist, whose experimental skill is equalled by his love of science."

IV.

From THOMAS ANDREWS, M.D., F.R.S., &c. *Vice-President and Professor of Chemistry, Queen's College, Belfast.*

QUEEN'S COLLEGE, Dec. 1, 1851.

Mr. BRAZIER has acted in the capacity of Chemical Assistant in the Laboratory of this College since the opening of the present session. From the high testimony which Professor Hofmann bore publicly to his talents as a Chemist, and skill as an experimentalist, I considered myself fortunate when an opportunity occurred which enabled me to secure his services, and it is bare justice to Mr. BRAZIER to say that he has fully realised all that Dr. Hofmann said in his favour. During the short period that has elapsed since he came here, he has been actively engaged in teaching, and in private research. In both respects he has displayed abilities of no common order; to his skill as an analytical Chemist, I can add nothing to, but am happy fully to confirm, the statement of Dr. Hofmann; to his patience and tact as a Teacher, I can bear the fullest testimony. Mr. BRAZIER combines high scientific acquirements with an excellent address and a most conciliatory temper. Since he arrived here, my only regret has been, that he had not received the rewards to which his merits justly entitle him.

Mr. BRAZIER has already made several important communications to the Chemical Society, and is at present occupied in collecting materials for further publication. On personal grounds, I shall deeply regret the loss of Mr. BRAZIER's services, but for his own sake, as well as for the interests of science, I heartily wish him success.

THOMAS ANDREWS, M.D., F.R.S.

V.

From AUGUSTUS W. HOFMANN, Ph. D., F.R.S., &c. &c. *Professor of the Royal College of Chemistry, London.*

ROYAL COLLEGE OF CHEMISTRY, April 21, 1852.

I HAVE much pleasure in bearing testimony to the acquirements of Mr. J. SMITH BRAZIER in Agricultural Chemistry.

During the time he studied in the Royal College of Chemistry, Mr. BRAZIER devoted himself particularly to the investigation of Agricultural subjects, as is very conspicuously evinced by his elaborate investigation of the ashes of various flax plants and the soils upon which they had grown.

At a later period, while Assistant in the College, he likewise has had frequent opportunities of acquiring great skill and practice in the performance of Chemico-Agricultural inquiries. I believe that he is perfectly competent to give excellent instruction in Agricultural Chemistry.

AUGUSTUS W. HOFMANN, Ph. D., F.R.S.

VI.

From THOMAS ANDREWS, M.D., F.R.S., &c. &c. *Vice-President and Professor of Chemistry in Queen's College, Belfast.*

QUEEN'S COLLEGE, BELFAST, March 31, 1852.

HAVING been requested by Mr. BRAZIER to express my opinion as to his fitness to fill the Chair of Agriculture in the University of Aberdeen, I have much pleasure in stating that

Mr. Brazier has devoted himself with great assiduity and success to those parts of Chemistry which are most intimately connected with Agriculture. Among other proofs which he has given of special attention to Agricultural questions, I may refer particularly to a paper which he published in the Memoirs of the Chemical Society, on the composition of the flax plant.

I may perhaps be permitted to add, that the Professor of Agriculture in this College is, like Mr. Brazier, an experienced analytical Chemist, and that the Agricultural department has, under his system of instruction, been conducted in such a manner as to give very general satisfaction.

THOMAS ANDREWS, M.D.

VII.

From John F. Hodges, M.D., F.C.S., *Professor of Agriculture in Queen's College, Belfast; Foreign Member of the Royal Academy of Agriculture of Stockholm.*

Queen's College, Belfast, April 8, 1852.

I have had an opportunity of reading several valuable contributions by Mr. Brazier to the literature of Agricultural science, and I know that he has occupied himself with great industry in Agricultural analysis. I have therefore much pleasure in stating my opinion that he would be found well qualified to perform the duties of the Fordyce Lectureship in Aberdeen.

JOHN F. HODGES, M.D.

VIII.

From THOMAS CLARK, M.D., *Professor of Chemistry in Marischal College and University.*

ABERDEEN, March 21, 1853.

MR. BRAZIER has been acting as my Assistant and Substitute in conducting the Chemistry Classes in Marischal College for a twelvemonth. I did not make choice of him till after due inquiry respecting him, from Chemists of high standing that knew him, both professionally and personally. I thus obtained from persons that I had full confidence in, assurances not only of his attainments in science, but of his private worth and prudent and agreeable demeanour. Their assurances, the experience of the last year has fully confirmed. I have found Mr. BRAZIER not only, as I was led to expect, an accomplished analytical Chemist, and well acquainted with Chemistry in its present advanced state, but very well informed in regard to manufactures and other subjects of interest connected with the practical applications of Chemistry, and well prepared in regard to the most approved means of presenting illustrations by diagrams, specimens, and experiments.

I think that Mr. BRAZIER is qualified to do justice to the Fordyce Lectureship. I have no doubt that he will be a painstaking and efficient Lecturer. A practical knowledge of analytical Chemistry, although by no means the only qualification of a scientific Lecturer in Agriculture, has been considered so essential, that I am not aware of any person appointed Professor of Agriculture, during the last twelve years, excepting one, well qualified in this particular. The present Professor of the Highland Agricultural Society of Scotland, was recently appointed Professor of Chemistry in the University of Glasgow, and still retains his office under the Society, and his predecessor held a similar position in the University of Durham. It has happened, indeed, that most of the new and valuable scientific improvements in Agriculture have been founded on the present advanced state of Chemical science, and have resulted

from the accurate practical application of its resources. This result has come to pass thus—when it has to be ascertained what mineral matter a crop takes from a soil, the means to ascertain this important matter of fact are, to burn a specimen of the crop to ashes, and accurately to analyze those ashes. Accordingly, when British Agriculturists had their attention much drawn to the cultivation of flax, the analysis of the ashes of flax was the most direct and sure means of ascertaining what matter should be looked for in the soil, and what added to it in the form of manure. This task was performed by Mr. Brazier, in conjunction with another Chemist, in a manner worthy of the object and of the present state of science.

If it shall please the Patrons to appoint Mr. Brazier, I have no doubt that the news of the appointment will be received at other Universities and seats of learning throughout the United Kingdom, as one merited by the person appointed, and honourable to the Patrons and the University.

THOMAS CLARK, M.D.

IX.

From Thomas Graham, F.R.S., F.R.S.E., F.C.S., &c. &c.
Professor of Chemistry in University College, London.

University College, November 29, 1851.

Mr. J. S. Brazier is the author, in conjunction with Mr. Gossleth, of an elaborate Memoir, entitled "Contributions towards the history of Caproic and Œnanthylic Acids," published by the Chemical Society. This paper gives evidence of very considerable power on the part of its authors, both in the practice of the nicest experimental investigations of Organic Chemistry, and also in the discussion of the most intricate points of Chemical Theory. I have had myself other opportunities of observing Mr. Brazier's skill and ability as an Analyst, and the clearness and precision of his explanations of scientific subjects. He appears to me to unite the requisites of a Chemical Investigator with those of a sound and attractive Teacher of the Science.

THOMAS GRAHAM, F.R.S.

X.

From THOMAS GRAHAM, F.R.S., F.R.S.E., F.C.S., &c. &c. *Professor of Chemistry in University College, London.*

UNIVERSITY COLLEGE, September 28, 1852.

ON a former occasion I had an opportunity of expressing the highly favourable opinion which I entertain of Mr. BRAZIER'S standing and attainments as a Chemical Inquirer and Teacher. His investigations have lately been extended to the special branch of Agricultural Chemistry, in which he has contributed a paper on the flax plant. Mr. BRAZIER possesses, I have no doubt, most valuable qualifications for such an honourable appointment as the Fordyce Lectureship in Marischal College, and would be able to offer the useful guidance to the Agriculturists of his neighbourhood, which it has been shown elsewhere may be obtained from a just consideration of the scientific principles of Agriculture.

THOMAS GRAHAM, F.R.S.

XI.

From JAMES APJOHN, M.D., M.R.I.A., &c. &c. *Professor of Chemistry and Mineralogy in Trinity College, Dublin.*

DUBLIN, October 5, 1851.

DEAR SIR,

HAVING understood that you are a candidate for the Fordyce Lectureship on Agricultural Chemistry in the University of Aberdeen, and that you wish me to express what I think of your qualifications for such appointment, I have much pleasure in giving it as my opinion—founded partly on the perusal of your printed papers, and partly on the report of scientific friends, who have had better opportunities than myself of judging of your attainments, that you are a person highly likely to fill the situation you are in pursuit of, in the event of your being elected to it, in an efficient and creditable manner. Looking to the great progress in modern times of scientific

husbandry, there can be no difficulty in attributing much of it to the great advances which have been contemporaneously made in Organic Chemistry. In this department you have given complete proofs of being thoroughly conversant, and your paper on the flax plant is evidence that you possess the faculty of bringing the resources of science to bear successfully upon questions of practical utility.

I am,

DEAR SIR,

With wishes for your success,

Yours very truly,

JAMES APJOHN, M.D.

XII.

From EDMUND RONALDS, Ph. D., F.C.S., *Professor of Chemistry in Queen's College, Galway.*

QUEEN'S COLLEGE, Oct. 8, 1852.

MR. BRAZIER has long been well known to the Chemical world by the numerous additions which his own researches have made to the science. Amongst these may be mentioned his

"Analysis of Plate Glass."

"Analysis of the inorganic constituents of the Flax Plant."

"Contributions towards the history of Caproic and Œnanthylic Acids."

"Analysis of Irish Bog-butter."

All these papers bear strong internal evidence that Mr. B. is intimately acquainted with the resources of modern Chemistry in its various departments, and the paper on the flax plant exhibits a rare amount of perseverance in following out the tedious details of Chemico-Agricultural analysis. I have no hesitation in stating that, in my opinion, Mr. BRAZIER is not only fully qualified to fill a Chair of Agricultural Chemistry, but will do credit to any Institution with which he may be connected.

EDMUND RONALDS, Ph. D.

XIII.

From F. A. ABEL, F.C.S., *Professor of Chemistry, Royal Military Academy, Woolwich, and Instructor of Practical Chemistry, St. Bartholemew's Hospital, London.*

WOOLWICH, Sept. 20, 1852.

IT affords me much pleasure to bear testimony to the high qualifications, as a Chemist, and an Instructor in the Laboratory and Class Room, of Mr. JAMES S. BRAZIER, my former colleague at the Royal College of Chemistry.

In addition to the great general experience in the theory and practice of the science acquired at that Institution, and subsequently at the Queen's College, Belfast, Mr. BRAZIER has paid special attention to the application of Chemistry to Agriculture, as is amply proved by the valuable paper on the flax plant, published by him not long ago, in conjunction with Professor Mayer, F.C.S. of Madras.

Mr. BRAZIER'S clear and happy methods of elucidation, which made him highly successful as a teacher at the College of Chemistry, afford powerful motives for recommending him as a Lecturer on Chemistry and Agriculture.

F. A. ABEL.

XIV.

From F. PLOMLEY, M.D., Ph. D., F.L.S., *Lecturer on Chemistry and Vegetable Physiology to the Weald of Kent Farmers' Club.*

MAIDSTONE, April 17, 1852.

MR. BRAZIER has been connected with Agriculture from his youth, and is well acquainted with its science and practice; he has studied Chemistry with especial reference to Agriculture; and from my long acquaintance with him, I know him to be in every way qualified for the appointment of Lecturer on Agricultural Chemistry, having frequently consulted him on scientific subjects.

F. PLOMLEY, M.D.

XV.

From J. SHERIDAN MUSPRATT, Ph. D., F.R.S.E., &c. &c.
Professor of the College of Chemistry, Liverpool.

LIVERPOOL, Oct. 2, 1852.

DEAR SIR,

I AM very glad to find that you are a candidate for the Fordyce Lectureship, for well I know your attainments in Chemistry are of a high order.

During the time you were under me as a student, you displayed great diligence, perseverance, and talent; and since then you have had ample opportunities of extending your knowledge of our science of boundless research.

Your paper upon the History of Caproic and Œnanthylic Acids interested me greatly; and the one upon the "Mineral Constituents of the Flax Plant, and of the Soils on which the Plants had been grown," proved to me your intimate acquaintance with the Chemistry of Agriculture.

Wishing you every success,

Yours, DEAR SIR, sincerely,

JAMES SHERIDAN MUSPRATT, Ph. D.

XVI.

From J. H. GLADSTONE, Ph. D., F.C.S., *Demonstrator of Chemistry, St. George's Hospital, London.*

September 9, 1852.

DEAR SIR,

I SHALL be pleased if the expression of my sense of your abilities as a Chemist can be of any service to you. I regret that I have never had the opportunity of hearing you teach,

but from what I know of your Chemical attainments; from what I have heard of your proceedings since you left London, and from the direction which your own researches have taken, I feel no doubt but that you will ably fulfil the duties of any Lectureship where the subjects of Chemistry and Agriculture are combined.

Permit me,

DEAR SIR,

To subscribe myself,

Yours sincerely,

J. H. GLADSTONE.

J. S. BRAZIER, F.C.S.

XVII.

From WM. ALLEN MILLER, M.D., F.R.S., &c. &c. *Professor of Chemistry in King's College, London.*

KING'S COLLEGE, Nov. 24, 1851.

DEAR SIR,

I HAVE much pleasure in bearing my testimony to the success and ability with which you have pursued the study of Chemistry. Your papers communicated to the Chemical Society, and published in its transactions, are, however, more satisfactory and convincing to those qualified to judge, than any recommendation of mine could be. Of your care and analytical accuracy I can however speak, from the assistance which you afforded to the Chemical Commission on the Metropolis Water Supply (of which I was a member), in some of the numerous analyses of water which were required in the course of their investigation.

I am,

MY DEAR SIR,

Very truly yours,

WM. ALLEN MILLER, M.D., F.R.S.

Mr. J. S. BRAZIER, F.C.S.

XVIII.

From E. FRANKLAND, Ph. D., F.C.S., *Professor of Chemistry in Owen's College, Manchester.*

OWEN'S COLLEGE, Nov. 24, 1851.

DEAR SIR,

I CANNOT refuse to express the high opinion which I have of your attainments in Chemical science, founded upon a knowledge of the extensive opportunities for acquiring such knowledge you have had as a student, and subsequently as Assistant, at the Royal College of Chemistry. Your very accurate and highly interesting researches upon the electric decomposition of Caproic and Œnanthylic Acids, also show that you are well acquainted with the delicate methods of organic research.

Believe me,

DEAR SIR,

Yours very truly,

E. FRANKLAND, Ph. D.

Mr. J. S. BRAZIER.

XIX.

From G. B. BUCKTON, Esq., F.C.S.

38, GLOUCESTER PLACE, HYDE PARK,
Sept. 20, 1852.

MY DEAR SIR,

HAVING worked with you for some time in the College of Chemistry in London, it is with much pleasure that I bear testimony to your ability and aptness in assisting the students under you, both in practical and theoretical Chemistry, and it will give me sincere pleasure to hear of the success of your present application, being persuaded that few persons will be found better qualified for the appointment you now seek.

I remain,

Yours very truly,

G. B. BUCKTON.

J. S. BRAZIER, F.C.S.